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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/707,282

12/03/2003

Steven H. Voldman

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12/10/2004

MCGUIRE WOODS LLP

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EXAMINER

FENTY, JESSE A

ART UNIT

PAPER NUMBER

2815

DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/707,282	Applicant(s) VOLDMAN, STEVEN H.	
	Examiner Jesse A. Fenty	Art Unit 2815	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/03/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-17 in the reply filed on 10/28/04 is acknowledged.

Claim Objections

1. Claims 11 and 12 are objected to because of the following informalities:
 - a. Claim 11 recites the limitations "the first fuse lead" and "the second fuse lead" in lines 5 and 6 of the claim. There is insufficient antecedent basis for this limitation in the claim.
 - b. Claim 12 recites the limitation "the multiple conductive strips" in lines 1 and 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 7, 9 and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kothandaraman et al. (U.S. Patent No. 6,432,760 B1).

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In re claim 1, Kothandaraman (esp. Fig. 2) discloses a semiconductor device, comprising:
an insulating film (11);
at least one conductive region (12) partially covering the insulating film;
at least one non-conductive region (strips of 17) on the insulating film adjacent the conductive region.

In re claim 7, Kothandaraman discloses the device of claim 1, wherein the non-conductive region comprises a non-conductive material (17, oxide).

In re claim 9, Kothandaraman discloses the device of claim 1, further comprising a first fuse lead (16) and a second fuse lead (16) disposed on the insulating film in electrical communication with the at least one conductive region.

In re claim 14, Kothandaraman (esp. Fig. 2) discloses a semiconductor device, comprising:
a polysilicon film (11) with a top surface;
a conductive film (16) disposed on the top surface of the polysilicon film forming a plurality of conductive regions; and,
non-conductive regions (17, 18) separating the plurality of separate conductive regions.

In re claim 15, Kothandaraman discloses the device of claim 14, wherein the conductive film comprises a metal (column 2, lines 13, 14).

In re claim 16, Kothandaraman discloses the device of claim 14, wherein the plurality of separate conductive regions alternate positions with the non-conductive regions.

In re claim 17, Kothandaraman discloses the device of claim 14. The limitation, "are configured to limit ... fuse" is a recitation of the intended use of the device.

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Giust et al. (US 2003/0155629 A1).

In re claim 1, Giust (esp. Figs. 16-22) discloses a semiconductor device, comprising:
an insulating film (32);
at least one conductive region (34) partially covering the insulating film;
at least one non-conductive region (126) on the insulating film adjacent the conductive region.

In re claim 2, Giust (esp. Fig. 18) discloses the device of claim 1, wherein the at least one conductive region comprises at least two conductive regions (34) separated by the at least one non-conductive film.

In re claims 3-5, Giust discloses the device of claim 2. The limitations regarding resistance provided (claim 3), increased resistance (claims 4 and 5) are recitations of the intended use of the claimed device. Terms that simply set forth the intended use, a property inherent in or a function, do not differentiate the claimed composition of these elements from those known to prior art.

In re claim 6, Giust discloses the device of claim 2, wherein the at least two conductive regions comprise conductive strips and the non-conductive region and the conductive strips are approximately parallel to one another.

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In re claim 7, Giust discloses the device of claim 1, wherein the non-conductive region comprises a non-conductive material.

In re claim 8, Giust discloses the device of claim 7, wherein the non-conductive material comprises a gas.

In re claim 9, Giust discloses the device of claim 1, further comprising a first fuse lead and a second fuse lead [section 0040; lines 4-7] disposed on the insulating film in electrical communication with the at least one conductive region.

In re claim 10, Giust discloses the device of claim 9, further comprising at least one electrical contact in electrical communication with the first fuse lead and at least one electrical contact in electrical communication with the second fuse lead [section 0040; lines 7-10]).

4. Claims 1-7 and 9-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Anthony (US 2003/0062590 A1).

In re claim 1, Anthony (esp. Fig. 1A) discloses a semiconductor device, comprising:
an insulating film (110);
at least one conductive region (130) partially covering the insulating film;
at least one non-conductive region (140) on the insulating film adjacent the conductive region.

In re claim 2, Anthony discloses the device of claim 1, wherein the at least one conductive region comprises at least two conductive regions separated by the at least one non-conductive region.

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In re claims 3-5, Anthony discloses the device of claim 2. The limitations regarding resistance provided (claim 3), increased resistance (claims 4 and 5) are recitations of the intended use of the claimed device. Terms that simply set forth the intended use, a property inherent in or a function, do not differentiate the claimed composition of these elements from those known to prior art.

In re claim 6, Anthony discloses the device of claim 2, wherein the at least two conductive regions comprise conductive strips and the non-conductive region and the conductive strips are approximately parallel to one another.

In re claim 7, Anthony discloses the device of claim 1, wherein the non-conductive region comprises a non-conductive material.

In re claim 9, Anthony (esp. Fig. 1C) discloses the device of claim 1, further comprising a first fuse lead (160) and a second fuse lead (170) disposed on the insulating film in electrical communication with the at least one conductive region.

In re claim 10, Anthony discloses the device of claim 9, further comprising at least one electrical contact in electrical communication with the first fuse lead and at least one electrical contact in electrical communication with the second fuse lead.

In re claim 11, as best understood, Anthony (esp. Fig. 1C) discloses the device of claim 1, wherein the at least one conductive region are multiple conductive regions defined as conductive strips disposed on the insulating film with the at least one non-conductive region being multiple non-conductive regions (120, 140, 120) between each of the multiple conductive strips, wherein a first end of each conductive strip is in electrical communication with the first fuse lead (160)

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and a second end of each electrical strip is in electrical communication with the second fuse lead (170).

In re claim 12, as best understood, Anthony discloses the device of claim 9, wherein each conductive strip of the multiple conductive strips is in electrical communication with each other conductive strip through at least the first fuse lead or the second fuse lead.

In re claim 13, Anthony discloses the device of claim 1, wherein the insulating film comprises polysilicon (section [0024]) and the at least one conductive region (130) comprises a metal (section [0026]).

In re claim 14, Anthony (esp. Fig. 1A) discloses a semiconductor device, comprising:
a polysilicon film (110) with a top surface;
a conductive film (130) disposed on the top surface of the polysilicon film forming a plurality of conductive regions; and,
non-conductive regions (120, 140) separating the plurality of separate conductive regions.

In re claim 15, Anthony discloses the device of claim 14, wherein the conductive film comprises a metal (section [0026]).

In re claim 16, Anthony discloses the device of claim 14, wherein the plurality of separate conductive regions alternate positions with the non-conductive regions.

In re claim 17, Anthony discloses the device of claim 14. The limitation, “are configured to limit ... fuse” is a recitation of the intended use of the device.

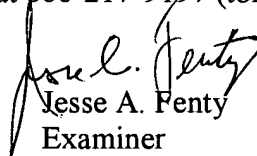
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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jesse A. Fenty whose telephone number is 571-272-1729. The examiner can normally be reached on 5/4-9 1st Fri. Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on 571-272-1664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jesse A. Fenty
Examiner
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